CLMPTO

June 03, 2005

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1. Transmission system for transmitting speech information within at least one data transmission network, such as LAN, Intranet, Internet, connecting several subscribers, in which transmission is carried out by means of data packets on the basis of at least one shared protocol, e.g. Internet protocol, and each subscriber is connected to the network via a voice data transmission unit (3), possibly an analog-to-digital converter (61) and a digital-to-analog converter (60), comprising a transceiver unit and a voice data conversion unit as well as a speaker and an earpiece unit (6, 7) connected to said voice data transmission unit, the speaker unit (6) or the inserted analog-to-digital converter (61) being connected to the transmission unit via an addition input (12) of an echo cancellation unit (5) and the output (13) thereof and a subtraction input (11) of the echo cancellation unit (5) being connected to the earpiece unit (7)or to the inserted digital-to-analog converter (60), wherein an additional echo cancellation unit (9) with an addition and a subtraction input (14, 15) is provided, the output (16) thereof being connected to the earpiece unit (7) or to the inserted digital-to-analog converter (60) and wherein the subtraction input (15) is connected to the transmitter unit of the voice data transmission unit (3) and the addition input (14) is connected to the receiver unit of the voice data transmission unit (3).

2. Transmission system according to claim 1, wherein the additional echo cancellation unit (9) is provided with a control input (17) for controlling a memory delay time of the voice signal or of the speech information that corresponds to the minimum delay time of the network, said control input (17) being connected to the output of a control unit (18) connected to the voice data transmission unit (3).

3. (Amended) Transmission system according to claim 1, with an echo cancellation unit comprising a delay line consisting of several delay elements, wherein the first delay element of the delay line has a relatively high memory delay time that is substantially equal to the minimum overall propagation time of the voice data signals in both directions of the data network.

4. Transmission system according to claim 3, wherein the memory delay time of the first delay element (20) of the delay line may be controlled by way of the voice data transmission unit (3), preferably by interpreting the time information of the real-time protocol.

5. Method of transmitting speech information within at least one data transmission network, such as LAN, Intranet, Internet, connecting several subscribers, in which transmission is carried out by means of data packets on the basis of at least one shared protocol, e.g. Internet protocol, the speech information received by each subscriber through a receiver unit being converted into a voice signal and reproduced through an earpiece unit (7) and the voice signal generated by each subscriber through a speaker unit (6) being converted into speech information and transmitted in a transmitter unit, the speech information received through the receiver unit or the speech information converted into a voice signal being delayed and weighted with coefficients and subtracted from the voice signal generated in the speaker unit (6) or from the voice signal converted into a corresponding speech information for echo cancellation, wherein the voice signal or speech information producing the echo(s) that has been delayed by at least the network delay time by means of a delay line (21, 22, 23) and weighted with the coefficients (k) is subtracted from the echo signal created at the respective other subscriber (50, 51) and returned over the data transmission network (1) on the side of the subscriber (50, 51) connected to the first one.

8. Method according to claim 5, wherein the loss of data packets arising from transmission is detected and the subtraction of the corresponding, delayed voice signal or of the corresponding, delayed speech information is suppressed accordingly.

7. (Amended) Method according to claim 5, wherein when one or several data packets have gotten lost, the respective preceding voice data packet is repeated.

8. Method according to claim 7, wherein, on repeating the respective preceding voice data packet, the subtraction of a corresponding voice signal or of a corresponding speech information on the side of the connected subscriber is suppressed.

9. Method according to claim 7, wherein, on repeating the respective preceding voice data packet, the mating, stored voice signal or the mating, stored speech information respectively of the connected subscriber is subtracted with delay and weighting.

10. Method according to claim 5, wherein the coefficients (k) of the delay line (20, 22, 23) are set to zero when the network delay time changes.

11. Method according to claim 5, wherein the change in network delay time is measured and the values of the coefficients k assigned to the delay elements (20, 22, 23) are relocated within the delay line according to this change.

12. Method according to claim 11, wherein the memory delay time of the first delay element (20) with the relatively high delay time is controlled through the voice data transmission unit (3) by preferably interpreting the time information of the real-time protocol and wherein relocation of the coefficients k within the delay line is automatically carried out with the change of the delay time of the first delay element (20).

13. (NEW) Method according to claim 4, wherein when one or several data packets have gotten lost, the respective preceding voice data packet is repeated.

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